

## MOSQUITO NOTES.—No. 5. (CONCLUDED.)

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This insect was described some months since, but by some error the MS. was not published as I expected, so I now use it as a conclusion to "Mosquito Notes, No. 5."

*Ludlowia minima*, n. sp.—Head light brown, covered with flat light yellow or yellowish-white scales, two brown bristles projecting forward between the eyes, a few brown fork scales in the nape; antennæ brown, verticels and pubescence brown, and normal; basal joint testaceous, with a few short brown hairs; second and third joints have a few flat brown scales; palpi brown, apical joints missing, those remaining heavily brown-scaled; proboscis brown, tip light; eyes brown; clypeus brown, with "frosty" tomentum.

Thorax: prothoracic lobes testaceous, with a few brown bristles; mesonotum dark brown, partly denuded, but the remaining scales on each insect are dark brown slender curved scales (not hairs) and a few dark brown bristles over the scutellum and wing joint; scutellum with dark brown slender curved scales and brown bristles; pleura light, with a couple of brown spots and a few white scales; metanotum dark brown.

Abdomen light, with dark brown scales and narrow ochraceous basal bands extending laterally as small basal light spots; venter mostly light-scaled.

Legs as a whole brown, but the colour changing with the direction of the light to a light brownish-gray; coxæ and trochanters light; femora dark dorsally, ventrally almost white, tiny apical light spots on femora and tibiæ, distally dark, the rest of the joints missing except on hind legs, where the ungues are simple and equal.

Wings clear, densely covered with brown scales, lateral scales broadly lanceolate, median broadly truncate, showing very little if any symmetry; spine-like scales on the costa. Cells not so markedly short as in *Chamberlainii*. First submarginal about  $1/7$  long, and nearly the same width as second posterior, both very narrow; stem of former not half as long as cell, and about a fourth shorter than that of second posterior; mid-cross-vein meets supernumerary, and is slightly longer; posterior cross-vein slightly shorter than mid, and about twice its own length distant. Length, 2.5 mm.

Male.—Is very like female; fork scales on nape more numerous; antennæ missing; palpi longer than proboscis and clubbed; ungues on fore and mid legs unequal, the larger uniserrate, the smaller simple and comparatively straight; hind legs missing. Wing-cells shorter in proportion, and the stems longer. Length, 3 mm.

Habitat, Carandaugan, Mindanas, Philippine Islands. Taken January 19, 1906.

Neither specimen is perfect, and the male especially is in bad shape, but there can be no reasonable doubt as to the genus, or that the species is new.

Described from one male and one female sent by Lieut. W. H. Duncan, Assistant Surgeon U. S. Army, with specimens of *Chamberlainii*; it is an extremely small mosquito, quite as small as *S. minuta*, Theob., or *S. Amesii*, Ludlow.

#### NOTES ON RECURVARIA GIBSONELLA, KEARF.

BY ARTHUR GIBSON, OTTAWA.

Early in May, 1905, I collected at Hull, Que., which is just across the Ottawa River from Ottawa, some very small larvæ, each one of which was enclosed within several leaves tied together at the tips of the branches of the common Juniper, *Juniperus communis*, L. From this material I reared three moths, which were submitted to Mr. W. D. Kearfott for examination. Deciding that they were new to science, he honoured me by describing them in the January, 1907, number of the CANADIAN ENTOMOLOGIST under the name of *Recurvaria Gibsonella*.

During the past season some further observations were made on the species. On April 27 I again visited the original locality, and found larvæ very abundant in their characteristic winter quarters. At that time of the year each larva was found in a small tube-like enclosure at the tips of the main branches and side twigs. As many as nine or ten leaves were drawn together and fastened strongly with silk, in the centre of which the nearly full-grown larva passed the winter. As these leaves are dead, or partly so, and discoloured, the hibernaculum is easily found after having once been seen.

In early May a number of localities at and adjacent to Ottawa, where the common Juniper is abundant, were visited, and in every instance larvæ were found in considerable numbers. The species is evidently a common one, and will doubtless be found in many places where the above plant is plentiful.

December, 1907.